CURRENT LISTING OF CLAIMS

1. (Original) A collimator device for a nuclear imaging camera, comprising:

a grid of collimation square holes formed by a plurality of sheets arranged in a grid pattern, each of said sheets having evenly spaced slots into which other sheets are inserted;

optically reflecting material coating at least a portion of the surfaces of said sheets forming said grid of said collimation square holes; and

pixellated scintillators individually located in each of said collimation square holes.

2. (Original) The device of claim 1, wherein said optically reflecting material maximizes light intensity of pixellated scintillators events.

3. (Original) The device of claim 1, wherein said pixellated scintillators are scintillation crystals.

4. (Original) The device of claim 1, wherein said pixellated scintillators have a square-shaped configuration.

5. (Original) The device of claim 1, wherein said plurality of sheets are formed of a material having a high density.

6. (Original) The device of claim 5, wherein the high density material is tungsten.

7. (Original) The device of claim 5, wherein the high density material is lead.

8. (Original) The device of claim 1, wherein the reflecting material is TiO.sub.2.

9. (Original) The device of claim 1, wherein the reflecting material is MgO.

10. (Original) A scintigraphic device, comprising:

a collimator device including a grid of collimation square holes formed by a plurality of sheets arranged in a grid pattern, each of said sheets having evenly spaced slots into which other sheets are inserted;

optically reflecting material coating at least a portion of the surfaces of said sheets forming said grid of said collimation square holes; and

pixellated scintillators individually located in each of said collimation square holes; and a detector coupled to said pixellated scintillators and operable to detect radiation emanating from an object and interacting with said scintillators after passing through said collimator device.

11. (Original) The device of claim 10, wherein said optically reflecting material maximizes light intensity of pixellated scintillators events.

12. (Original) The device of claim 10, wherein said pixellated scintillators are scintillation crystals.

13. (Original) The device of claim 10, wherein said pixellated scintillators have a square-shaped configuration.

14. (Original) The device of claim 10, wherein said plurality of sheets are formed of a material having a high density.

15. (Original) The device of claim 14, wherein the high density material is tungsten.

16. (Original) The device of claim 14, wherein the high density material is lead.

17. (Original) The device of claim 10, wherein the reflecting material is TiO.sub.2.

18. (Original) The device of claim 10, wherein the reflecting material is MgO.

19. (Original) A method of forming a collimator device, comprising:

forming a plurality of evenly spaced slots across a longitudinal direction of a plurality of sheets;

arranging said plurality of sheets in a grid pattern by inserting a sheet into each of said slots and thereby forming a grid of collimation square holes;

coating at least a portion of the surfaces of said sheets forming said grid of said collimation square holes with an optically reflecting material; and

inserting pixellated scintillators into each of said collimation square holes.

20. (Original) The method of claim 19, wherein said optically reflecting material maximizes light intensity of pixellated scintillators events.

21. (Original) The method of claim 19, wherein said pixellated scintillators are scintillation crystals.

22. (Original) The method of claim 19, wherein said pixellated scintillators have a square-shaped configuration.

23. (Original) The method of claim 19, wherein said plurality of sheets are formed of a material having a high density.

24. (Original) The method of claim 23, wherein the high density material is tungsten.

25. (Original) The method of claim 23, wherein the high density material is lead.

26. (Original) The method of claim 19, wherein the reflecting material is TiO.sub.2.

27. (Original) The method of claim 19, wherein the reflecting material is MgO.

28. (Currently amended) A building block for forming a collimator device of a nuclear medical imaging camera, comprising an elongated sheet of metallic material having a thickness suitable for functioning as septa of said collimation device, [and] having a

plurality of evenly spaced slots into which other elongated sheets are inserted in order to form a grid pattern of collimation holes into which pixellated scintillators are placed, and being coated with an optically reflective material.